

July, with the seeds being shed by mid July. The two populations of var. *apricum*, however, flower from mid July through September and seeds are shed from August through late October. The leaves of var. *prostratum* are generally smaller than those of var. *apricum*, the former averaging 5–6 mm and are often 10–11 mm long. The only anatomical difference evident is that the cortex cells in the flowering stems of var. *prostratum* are of a longer, palisade type, being 2–3 times the length of those in var. *apricum*. Greenhouse studies have shown that plants grown from seeds of var. *prostratum* retain these distinctive characteristics under uniform conditions.

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## CLARKIA JOLONENSIS (ONAGRACEAE), A NEW SPECIES FROM THE INNER COAST RANGES OF CALIFORNIA

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In the most recent taxonomic discussion of *Clarkia deflexa*, Lewis and Lewis (1955) pointed out that this endemic California species “shows considerable variation, particularly from population to population and to some extent regionally.” A further study of this species (Parnell, 1968) has clarified that, in fact, what has been included under the name *C. deflexa* are two morphologically distinct population groups effectively separated from each other by both geographical and internal barriers to gene exchange.

The first group of populations is found in the outer Coast Ranges of California from Orange Co. north to San Luis Obispo Co. Although there is a high degree of morphological variation between these populations, hybrids between them are highly fertile (Lewis, 1953; Parnell, 1968).

The second group of populations is known only from the inner Coast Ranges of Monterey Co. As in the case of the first group, interpopulational hybrids are fully fertile.

Except for two individuals from populations in the outer Coast Ranges who were heterozygous for a single translocation, all individuals includ-

ing the hybrid progeny regularly formed nine pairs of chromosomes at meiotic metaphase I.

Intergroup hybrids have been obtained only seven times (four of the individuals came from the seeds of a single capsule) and only after numerous pollinations had been attempted. The difficulty in obtaining these hybrids stems from embryo inviability caused by genetic and possibly cytoplasmic differences between the two groups. The seeds of the plants belonging to the two groups are markedly different and provide the only consistent way of telling them apart. In the Monterey Co. plants the seeds are heavily covered with scales and appear dark gray. Seeds from other populations are covered primarily by small papiliform projections and appear black or brown in color.

In view of these morphological differences and the well developed barriers to hybridization, it seems appropriate to recognize the Monterey County populations as a distinct species.

**Clarkia jolonensis** Parnell, sp. nov. Herba erecta, altitudine ad 6 dm; caulibus simplicibus vel ramosis; foliis 2–6 cm longis, 2–5 mm lato; calycis limbo 9–15 mm longo, 2–3 lato; petalis 11–19 mm longis, 9–14 mm latop stylo 9–14 mm longo, quam staminibus longiore vel longitudine aequa; semina cinera propter squamas.

Type. California, Monterey Co., 9 mi. N.W. of Bradley along Jolon Road, June 3, 1963, *R. F. Thorne & P. Everett 32186*. (DS, LA-holotype).

Specimens examined. Monterey Co: Road to Pleyto, 0.4 mi. south of Bradley-Jolon Road, *Lewis & Epling 192* (LA); 3.1 mi. north of San Antonio Road, Lockwood-San Lucas Road, *Hardham 4318* (LA); Shale Hills, w. side Hames Valley, Jolon-Bradley Road, *Hardham 1299* (LA); Mill Creek, road to Adler Creek, *Hardham 6049* (LA); foot of grade to King City, *Dudley* (DS).

Most populations of *C. jolonensis* are uniform in appearance except for one population located 9.1 mile east of the San Lucas Road turnoff in Lockwood. When compared with other populations, the seedlings and adult plants of this population tend to be smaller. The petals are 3–8 mm shorter in length and 3–5 mm narrower in width as well as being a much more pale pink. The style is shorter than the stamens and very seldom has it been observed to fall clear of them. Since pollen is being shed at the time the stigma becomes receptive some degree of self-pollination undoubtedly occurs. This is indicated by the full seed set that is obtained when plants from this population are left unattended in the greenhouse. Although this does not exclude a certain amount of outcrossing, it does indicate that self-pollination is probably the norm for the population in contrast to all other populations which ordinarily set no seed under similar conditions and show no sign of fertilization (e.g., swelling of the ovary accomplished by abscission of the flower.)

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CONCERNING THE VALIDITY OF LAMPRODERMA  
ECHINOSPORUM

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In 1924 Meylan described *Lamproderma echinosporum* on the basis of several collections from the Jura Mountains of Switzerland. This species was a typical snowline Myxomycete, i.e., found only at high elevations near the melting snow. Lister (1925) did not mention this taxon in her monograph, probably because it was described too late to be included in her work. In 1924 Macbride and Martin recognized the species as valid, but apparently did not have any material for observation. Dennison (1945), however, placed *L. echinosporum* under the heading of doubtful species. She had no material for study and on the basis of the description, she thought it was very close to *L. echinulatum* (Berk.) Rost. Hagelstein (1944) and Martin (1949) did not include it in their monographs because it was not reported from North America. During my work in the western United States, I have made five collections of a species which does not fit any of the generally recognized taxa, but which match perfectly with five of Meylan's collections of *L. echinosporum*. These five collections were obtained on loan from the Musée de Botanique, Lausanne, Switzerland. I believe that *L. echinosporum* is a good species and my collections (3601, 3668, 6240, 8284, 8286) apparently represent the first time that this taxon has been reported from the Western Hemisphere. All of my collections are from northern California and 8284 has been deposited in the University of Iowa Herbarium.

Meylan did not specifically designate a type collection and his species diagnosis was, in my opinion, incomplete. Thus, I am designating his April, 1923 collection from Prise as the lectotype and including a detailed English description with accompanying paragraphs dealing with the major characteristics and relationships of this taxon.

LAMPRODERMA ECHINOSPORUM Meylan. Sporangia (fig. 1) scattered to loosely clustered in small groups of 3-6, sessile or briefly stipitate, broadly ovoid to occasionally globose, 1.0-1.5 mm in diameter, color variable, dark brown to blue, dull, occasionally slightly iridescent; stipes, when present, short, averaging about 1.0 mm in length, shiny brownish-black; peridium membranous, thin, usually long persistent,